

WHAT IS CLAIMED IS:

1. In a process for bobbin winding coated monofilament dental tapes, the improvement comprising employing a coating conditioning means in combination with a tape tension control means to maintain minimum tension on the coated monofilament tape as it is bobbin wound.

2. The process according to Claim 1, wherein said coating conditioning means comprises a controllable heat surface for contacting said coating monofilament tape prior to bobbin winding to produce a bobbin having a tack value between about 0.1 and about 0.5 grams combined with a means for bobbin winding at minimum tension.

3. The process according to Claim 1, wherein said coating conditioning means comprises a controllable heating zone through which said coated monofilament tape passes prior to bobbin winding.

4. The process according to Claim 1, wherein said coating conditioning means is comprised of a temperature conditioning means consisting of a controllable heated zone through which the said coated monofilament tape passes prior to bobbin winding combined with a source of directed energy selected from the group consisting of radiant heat, lasers, radio frequency and combinations thereof targeted onto the bobbin during winding.

5. The process according to Claim 1, wherein said coated monofilament tape is selected from the group consisting of polytetrafluoroethylene, elastomer, bicomponent and homopolymer tapes.

6. The process according to Claim 1, wherein said coating on the monofilament dental tape ranges from between about 20% by weight and about 120% by weight of said tape and the tack value of the bobbin is from between about 0.1 and about 0.5 grams.

7. A bobbin of coated monofilament dental tape, wherein said coating is substantially saliva soluble and comprises from between about 20% and about 120% by weight of said tape, wherein:

said bobbin is wound under minimum tension to produce bobbins with dimensions acceptable for use in dental floss dispensers when said bobbin is exposed to elevated temperature and/or elevated humidity,

said coating is conditioned during bobbin winding to impart a tack value to the bobbin from between about 0.1 and about 0.5 grams, and

said bobbin unwinds substantially free from deformation and coating displacement when said bobbin is exposed to elevated temperature and/or elevated humidity.

8. A bobbin of coated monofilament tape suitable for use in a dental tape dispenser, wherein said saliva soluble coating comprises from between about 20% and about 120% by weight of said monofilament tape, and said coating is conditioned during bobbin winding and has a bobbin unwinding value from between about 0.1 and about 0.5 grams.

9. A bobbin of coated monofilament tape wherein said coating is saliva soluble and comprises from between about 20% and about 120% by weight of said monofilament, wherein:

said tape coating is conditioned prior to bobbin winding such that the wound bobbin has a tack value between about 0.1 and about 0.5 grams, and

said coated tape is wound onto said bobbin at minimum tension allowing the bobbin to remain substantially dimensionally stable with minimum coating displacement when said bobbin is exposed to elevated temperature and/or elevated relative humidity.

2025 RELEASE UNDER E.O. 14176

11. Dimensionally stable bobbins of coated monofilament dental tapes, wherein the tape and its coating are protected from exposure to elevated temperatures and elevated relative humidity by being wound under a minimum of tension with a tack value from between about 0.1 and 0.5 grams.